

**LPDES PERMIT NO. LA0103039, AI NO. 27399, ACTIVITY NO. PER20060001**  
**LPDES STATEMENT OF BASIS**  
**FOR THE DRAFT MODIFIED LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM**  
**(LPDES) PERMIT TO DISCHARGE TO WATERS OF LOUISIANA**

**COMPANY/FACILITY:** Discovery Producer Services LLC  
Discovery Larose Gas Processing Plant  
1474 Highway 24  
Larose, LA 70373

**ISSUING OFFICE:** Louisiana Department of Environmental Quality (LDEQ)  
Office of Environmental Services  
Post Office Box 4313  
Baton Rouge, Louisiana 70821-4313

**PREPARED BY:** Elizabeth H. Johnson  
Water Permits Division  
Phone: 225-219-3093  
Email: elizabeth.johnson@la.gov

**DATE PREPARED:** August 3, 2007

**1. PERMIT STATUS**

**A. Reason For Permit Action:**

Modification of an existing Louisiana Pollutant Discharge Elimination System (LPDES) permit LA0103039 following regulations promulgated at LAC 33:IX.3105. In accordance with LAC 33:IX.3105.B.2, only those permits limits and conditions pertaining to the draft modifications are open for public comment.

**B. LPDES permit effective date:** May 1, 2005  
**LPDES permit expiration date:** April 30, 2010

**C. Date Application Received:** March 1, 2006. A replacement application received on September 15, 2006.

**2. FACILITY INFORMATION**

**A. LOCATION:** 1474 Highway 24, approximately 1.8 miles west of Larose on the south side of Highway 24 in Lafourche Parish with the following front gate coordinates:

Latitude 29° 32' 34", Longitude 90° 23' 55"

Statement of Basis - Discovery Producer Services, LLC  
 Permit Number LA0103039  
 AI No. 27399  
 Page 2 of 9

**B. FACILITY TYPE/ACTIVITY:**

This existing natural gas processing plant is designed to separate the natural gas liquids and methane components of raw natural gas. The raw natural gas is cooled by refrigeration or cryogenic expansion that causes the liquid components to condense. Once separated the two streams are sent offsite via pipeline. The facility discharges once-through non-contact cooling water, hydrostatic test water, firewater system test water, treated sanitary wastewater, and stormwater to Grand Bayou Blue and Bayou Manuel.

- C. 40 CFR Chapter I, Subchapter N, Effluent Guidelines and Standards, Parts 401, 405-415, and 417-471 have been adopted by reference in LAC 33:IX.4903.

<u>Guideline</u>	<u>Reference</u>
NA	NA

**D. FEE RATE**

1. Fee Rating Facility Type: minor
2. Complexity Type: II
3. Wastewater Type: III
4. SIC code: 1321

**3. OUTFALL INFORMATION**

Outfall 001:

Discharge Type:	Once-through non-contact cooling water, stormwater and previously monitored effluent from Internal Outfalls 101 and 201.
Treatment:	None
Location:	At the point of discharge at the southwest corner of the facility prior to discharging to Grand Bayou Blue at Latitude 29° 32' 28", Longitude 90° 23' 53"
Flow:	32.250 MGD
Discharge Route:	Grand Bayou Blue

Outfall 002

Discharge Type:	The discharge of treated sanitary wastewater
Treatment:	Package extended aeration secondary treatment plant with chlorination
Location:	At the point of discharge at the northern portion of the facility prior to discharging to Bayou Manuel at Latitude 29° 32' 34", Longitude 90° 23' 53"
Flow:	0.400 MGD
Discharge Route:	Bayou Manuel

Statement of Basis - Discovery Producer Services, LLC  
Permit Number LA0103039  
AI No. 27399  
Page 3 of 9

Outfall 003

Discharge Type: The discharge of Firewater System Test water  
Treatment: None  
Location: At the point of discharge at the west side of the facility at the firewater pump station at Latitude 29° 32' 28", Longitude 90° 23' 55"  
Flow: Intermittent  
Discharge Route: Grand Bayou Blue

Outfall 004

Discharge Type: The discharge of stormwater runoff from the southeastern portion of the facility.  
Treatment: None  
Location: At the point of discharge at the northwest side of the facility prior to combining with other waters at Latitude 29° 32' 29", Longitude 90° 23' 47"  
Flow: Intermittent  
Discharge Route: Grand Bayou Blue

Internal Outfall 101

Discharge Type: The discharge of hydrostatic test water.  
Treatment: None  
Location: At the point of discharge from each tank, pipeline and/or equipment being tested before mixing with other waters at Latitude 29° 32' 29", Longitude 90° 23' 53"  
Flow: Intermittent  
Discharge Route: Combines with the effluent at Outfall 001

Internal Outfall 201

Discharge Type: The discharge of once-through non-contact cooling water.  
Treatment: None  
Location: At the point of discharge prior to mixing with other waters at Latitude 29° 32' 29", Longitude 90° 23' 47"  
Flow: Intermittent  
Discharge Route: Combines with the effluent at Outfall 001

Statement of Basis - Discovery Producer Services, LLC  
 Permit Number LA0103039  
 AI No. 27399  
 Page 4 of 9

#### 4. RECEIVING WATERS

Stream: Grand Blue Bayou via Outfalls 001, 003 and 004 and Bayou Manual via Outfall 002.

Basin and Subsegment: Terrebonne, Subsegment 120606 – Grand Blue Bayou (001 and 004)  
 Terrebonne, Subsegment 120604 – Bayou Manual (002)  
 Terrebonne, Subsegment 120604 – Grand Blue Bayou (003)

Designated Uses:

- a. primary contact recreation
- b. secondary contact recreation
- c. propagation of fish and wildlife

#### 5. PROPOSED CHANGES TO CURRENT LPDES PERMIT

- A. Outfall 001 - change the outfall description to reflect the deletion of the discharge of firewater system test wastewater.
- B. Outfalls 003 - newly designated outfall for the discharge of firewater from the west side of the facility.

#### 6. PERMIT LIMIT RATIONALE

The following section sets forth the principal facts and the significant factual, legal, methodological and policy questions considered in preparing the draft permit. Also, set forth are any calculations or other explanations of the derivation of specific effluent limitation and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under LAC 33:IX.2707 and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed.

Outfall 001: Once-through non-contact cooling water, stormwater and previously monitored effluent from Internal Outfalls 101 and 201.

EFFLUENT CHARACTERISTIC	MONTHLY AVERAGE	DAILY MAXIMUM	MEASUREMENT FREQUENCY
Flow-MGD	Report	Report	1/month
TOC	---	50 mg/L	1/month
Oil & Grease	---	15 mg/L	1/month
Temperature	---	Report	1/month
pH Min/Max (s.u.)	6.0	9.0	1/month

Statement of Basis - Discovery Producer Services, LLC  
 Permit Number LA0103039  
 AI No. 27399  
 Page 5 of 9

#### Site Specific Considerations for Outfall 001

Flow - established based on LAC 33:IX.2707.I.1.b. Flow shall be monitored at a frequency of 1/month and reported on the DMR as an estimate. These requirements have been retained from the current LPDES permit, effective on May 1, 2005.

TOC, Oil and Grease, and Temperature – limitations and/or monitoring requirements are established based on best professional judgment. TOC, Oil and Grease, and Temperature shall be monitored at a frequency of 1/month and collected as a grab samples. These requirements have been retained from the current LPDES permit, effective on May 1, 2005.

PH - established in accordance with LAC 33:IX.1113.C.1. PH shall be monitored at a frequency of 1/month and collected as a grab sample. These requirements have been retained from the current LPDES permit, effective on May 1, 2005.

#### Outfall 003: Firewater System Test Water

<b>EFFLUENT CHARACTERISTIC</b>	<b>MONTHLY AVERAGE</b>	<b>DAILY MAXIMUM</b>	<b>MEASUREMENT FREQUENCY</b>
Flow-MGD	Report	Report	1/quarter
TOC	---	50 mg/L	1/quarter
Oil & Grease	---	15 mg/L	1/quarter
pH Min/Max (s.u.)	6.0	9.0	1/quarter

#### Site Specific Considerations for Outfall 003

Flow - established based on LAC 33:IX.2707.I.1.b. Flow shall be monitored at a frequency of 1/quarter and reported on the DMR as an estimate.

TOC – a daily maximum limitation of 50 mg/L has been established. TOC shall be monitored at a frequency of 1/quarter and collected as a grab sample. Pollutants present in firewater system test waters are comparable to those found in low contamination potential stormwater runoff and uncontaminated utility wastewaters. Therefore, the limitation and monitoring requirements have been applied based on best professional judgment and are consistent with similar discharges found under the Light Commercial General Permit, LAG480000 (Schedules C and I).

Oil and Grease - a daily maximum limitation of 15 mg/L has been established. Oil and Grease shall be monitored at a frequency of 1/quarter and collected as a grab sample. Pollutants present in firewater system test waters are comparable to those found in low contamination potential stormwater runoff and uncontaminated utility wastewaters. Therefore, the limitation and monitoring requirements have been applied based on best professional judgment and are consistent with similar discharges found under the Light Commercial General Permit, LAG480000 (Schedules C and I).

Statement of Basis - Discovery Producer Services, LLC  
Permit Number LA0103039  
AI No. 27399  
Page 6 of 9

PH - established in accordance with LAC 33:IX.1113.C.1. PH shall be monitored at a frequency of 1/month and collected as a grab sample.

## **7. COMPLIANCE HISTORY/COMMENTS**

### **A. Compliance History**

1. WQMD - None
2. Other provisions - None

### **B. DMR Review**

A DMR review was conducted covering the period from April 20, 2004 through April 1, 2008. No excursions were reported.

### **C. Inspections**

A Compliance Evaluation Inspection was completed on May 18, 2007. The inspector did not find any areas of concern.

## **8. TOTAL MAXIMUM DAILY LOADING (TMDL) FOR REVISED OUTFALLS ONLY**

Outfall 001 discharges directly into Grand Blue Bayou, Subsegment Number 120606 of the Terrebonne Basin, which is listed on LDEQ's 303(d) List as impaired. The suspected causes for impairments are nutrients, organic enrichment/low DO, pathogen indicators, non-native aquatic plants, and phosphorus. To date, two TMDLs have been completed for this waterbody. A TMDL for Fecal Coliform in the Terrebonne Basin was issued March 29, 2007 and A TMDL for Dissolved Oxygen and Nutrients (Nitrate/Nitrite and Total Phosphorus) in Bayou Blue within the Terrebonne Basin was issued March 14, 2008.

### Non-Native Aquatic Plants

Non-native aquatic plants are introduced into a waterbody through discharges such as ship ballast water, where the ballast water originates from a different areas/waterbody. Since Outfall 001 does not contain wastewaters that are originate from other areas/waterbodies, LDEQ has determined there is no potential to cause further impairments to the receiving water body. Therefore, no additional requirements were added to this permit as a result of the non-native aquatic plant impairment.

### TMDL for Fecal Coliform in the Terrebonne Basin (See Federal Register Notice: Volume 72, Number 75, pages 19703 - 19704, 4/19/2007)

Fecal Coliform is an indicator parameter associated with sanitary wastewater discharges. Since sanitary wastewater is not discharged through Outfall 001, it has been determined that the permittee does not have a reasonable potential to contribute to an effluent violation above the

Statement of Basis - Discovery Producer Services, LLC  
Permit Number LA0103039  
AI No. 27399  
Page 7 of 9

state water quality standard for fecal coliform. No changes were made to Outfall 001 as a result of this TMDL.

It should be noted that the Fecal Coliform TMDL did establish a fecal coliform limitation of 400 colonies per 100 ml as a weekly average for the sanitary discharge from Outfall 002. The limitation is already present in the current LPDES permit, effective May 1, 2005. Therefore, this outfall will not be reopened for changes and/or public comment at this time.

TMDL for Dissolved Oxygen and Nutrients (Nitrate/Nitrite and Total Phosphorus) in Bayou Blue within the Terrebonne Basin was issued March 14, 2008 (See Federal Register Notice: Volume 73, Number 64, pages 17975 - 17976, 4/2/2008).

This TMDL identified natural conditions as the reason Bayou Blue can not meet the established water criteria for DO and nutrients. EPA Region VI has funded a UAA study for the Development of Site-Specific Dissolved Oxygen Criteria for the Terrebonne Basin in Louisiana. On January 31, 2008, the contractor (Tetra Tech, Inc.) submitted a draft report for EPA's review. In addition, LDEQ is involved in analyzing available data for the Barataria and Terrebonne Basin waters to evaluate and possibly revise the existing dissolved oxygen criteria. Upon adoption of new dissolved oxygen criteria, the TMDL may be withdrawn or revised. TMDL loading were not established in this TMDL.

Effluent limitation requirements for TOC were established at Outfall 001 in the current LPDES permit, effective May 1, 2005 to ensure that the integrity of the waterbody is maintained for organic enrichment/low dissolved oxygen.

Outfall 003 discharges directly into Grand Blue Bayou, Subsegment Number 120604 of the Terrebonne Basin, which is listed on LDEQ's 303(d) List as impaired. The suspected causes for impairments are dissolved oxygen, TDS, and non-native aquatic plants. To date, one TMDL has been completed for this waterbody. A TMDL for Dissolved Oxygen and Nutrients within the Middle Terrebonne Basin was issued March 14, 2008.

#### TDS

TDS was listed as impaired due to drought related impacts. Based on the type of discharge and that the impairment was due to drought related issued, LDEQ has determined there is no potential for this discharge to cause further TDS impairments to the receiving water body. Therefore, no additional requirements were added to this permit as a result of the TDS impairment.

#### Non-Native Aquatic Plants

Non-native aquatic plants are introduced into a waterbody through discharges such as ship ballast water, where the ballast water originates from a different areas/waterbody. Since Outfall 003 does not contain wastewaters that are originate from other areas/waterbodies, LDEQ has determined there is no potential to cause further impairments to the receiving water body. Therefore, no additional requirements were added to this permit as a result of the non-native

Statement of Basis - Discovery Producer Services, LLC  
Permit Number LA0103039  
AI No. 27399  
Page 8 of 9

aquatic plant impairment.

TMDL for Dissolved Oxygen and Nutrients within the Middle Terrebonne Basin was issued March 14, 2008 (See Federal Register Notice: Volume 73, Number 64, pages 17975 - 17976, 4/2/2008).

The TMDL did not identify this facility as a significant discharger, therefore did not assign loadings for BOD<sub>5</sub>, ammonia, and/or organic nitrogen.

Based on the type of discharge from Outfall 003, it is not reasonably expected to cause further dissolved oxygen and nutrient impairments to the receiving waterbody. However, a 50 mg/L daily maximum effluent limitation for TOC has been established at Outfall 003 ensure that the integrity of the waterbody is maintained.

The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to the established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards. A reopener clause will be established in the permit to allow for the requirement of more stringent effluent limitations and requirements as imposed by any future TMDLs.

## **9. ENDANGERED SPECIES**

The receiving waterbody for Outfalls 001 and 003, Subsegment 120606 of the Terrebonne Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U. S. Fish and Wildlife Service (FWS). The LDEQ, as instructed by the FWS in a letter dated October 24, 2007, from Boggs (FWS) to Brown (LDEQ). Therefore, as set forth in the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. The LDEQ has determined that the issuance of the LPDES permit is not likely to have an adverse affect upon any endangered or candidate species of the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat, as requiring consultation with the U. S. Fish and Wildlife Service (FWS).

## **10. HISTORIC SITES**

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.



Statement of Basis - Discovery Producer Services, LLC  
Permit Number LA0103039  
AI No. 27399  
Page 9 of 9

## **11. TENTATIVE DETERMINATION**

Based on preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a permit for the discharge described in the application.

## **12. PUBLIC NOTICES**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the proposed issuance of LPDES individual permits and may request a public hearing to clarify issues involved. This Office's address is on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. In accordance with LAC 33:IX.3105.B.2, only those permits limits and conditions pertaining to the draft modifications are open for public comment.

Public notice published in:

A local newspaper of general circulation and  
The Office of Environmental Services Public Notice Mailing List

## **13. STORMWATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENT**

In accordance with LAC 33:IX.2707.I.3, a Part II condition is proposed for applicability to all stormwater discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheet flow. The Part II condition requires a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit, along with other requirements. If the permittee maintains other plans that contain duplicative information, that plan could be incorporated by reference into the SWP3. Examples of these type plans include, but are not limited to Spill Prevention Control and Countermeasure Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. The conditions will be found in the draft permit. Including Best Management Practice (BMP) controls in the form of a SWP3 is consistent with other LPDES and EPA permits regulating similar discharges of storm water associated with industrial activity, as defined at LAC 33:IX.2511.B.14.